

Limited Phase II Environmental Site Assessment

City Of Houston Former Fire Station #11
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Houston, Texas 77007

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1.0 INTRODUCTION AND EXECUTIVE SUMMARY

Healthy Resources Enterprise, Inc. (HRE) was contracted by the City of Houston Building Services (COH – BS) to perform a limited Phase II Environmental Site Assessment (ESA) and asbestos and lead survey of the two-story building at the COH Former Fire Station #11 site. The site consists of approximately 7,000 square feet of property and 2,400 square feet two-story building located at 4520 Washington Avenue, Houston, Harris County, Texas 77007. A Phase I ESA was performed by TLC Engineering, Inc. (TLC) in July 2005. The Phase I ESA recommendations noted the following “Research and investigation of available records identified an unusually high number of sites within the boundaries of the project area.” Further the report noted “Prior commercial and industrial land use within a close proximity to the project site has also created areas of concern.” The TLC Phase I ESA recommended that a Phase II ESA including soil sampling within the project site boundaries and based on the condition and suspected construction date of the building, HRE recommended asbestos and lead-based paint surveys be conducted on the building’s interior and exterior materials. HRE conducted the field effort for this project on 27 October 2005 and 9 November 2005. The asbestos and lead based-paint surveys were performed by HRE certified personnel whose license is shown in Appendix A.

Based on the Phase I report findings and HRE subsequent recommendations, HRE conducted the limited Phase II ESA on the site to assist in evaluating potential areas of environmental concern as recommended in the TLC July 2005 Phase I ESA report and from HRE subsequent visual site investigations. The sample locations and property’s physical conditions are depicted on Figure 1, Soil, Soil Boring/Groundwater and Debris Sample Locations Map; Figure 2, Asbestos and Lead-based Paint Sample Locations Map and Appendix B, Site Photographs. The HRE limited Phase II ESA authorized by COH-BS included:

- **Task 1 – Site Field Investigation – Soils & Groundwater Sampling**

HRE reviewed and evaluated the analytical results from the on-site sampling effort for Task 1 using the Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program (TRRP) Tier 1 Protective Concentration Levels (PCLs). Metals data was either compared to the appropriate TRRP Tier I PCL or the Texas-specific background concentration, as per 30 TAC 350.51(m). Additionally, assuming the site will be used for Non-Residential purposes, the groundwater classification used for comparison purposes was Class 1, the default classification. Sample analysis primarily for waste disposal purposes was compared to the Environmental Protection Agency (EPA) hazardous waste classification values in Title 40 Code of Federal Regulations (CFR) Part 261.24.

A total of two (2) hand auger surface soil samples were collected from areas of potential concern on-site to a depth of <1 foot below ground surface (bgs). Each surface soil sample was analyzed for Total Petroleum Hydrocarbons (TPH) by method Texas 1005, BTEX by method SW8260, PCBs by method SW8081 and RCRA (8) metals by 6000/7000series method as presented in the Sample Analysis

Table, Table 1. These samples were analyzed by Accutest Laboratories of Houston, Texas.

The hand augured surface soil sample SS#1 result for Cadmium was 3.9 mg/kg; Lead was 218 mg/kg; and Mercury was 0.6 mg/kg. SS#1 is shown on Figure 1, Soil, Soil Boring/Groundwater and Debris Sample Locations Map. At these concentrations, SS#1 metals' results for Cadmium, Lead, and Mercury are above the Texas Risk Reduction Program (TRRP) Protective Concentration Limit (PCL) Tier I levels and/or the Texas –Specific Background Concentration at 0.75 mg/kg, 15 mg/kg, and 0.04 mg/kg, respectively. The remaining sampled parameters were reported at concentrations below TRRP Tier I PCLs and/or the Texas-specific Background Concentrations. **These elevated metals results may be the result of historic industrial land usage. Because of the elevated metals results in the surface soils, additional investigations including establishing site-specific soil background levels or considering remedial activities per the state's Voluntary Cleanup Program are options for COH.** Appendix D presents the laboratory analytical results and Appendix F, Table 2 presents the summary of the surface soil BETX, TPH and RCRA 8 metals sampling results.

SS#2 sample result for Aroclor 1254 was 0.0314 mg/kg, which is below the default PCB Tier I PCL at 5.3 mg/kg. As shown on Figure 1, Soil, Soil Boring/Groundwater and Debris Sample Locations Map, the SS#2 sample result was in the vicinity of the northeast section of the property, underneath the stand that supports the existing former emergency horn mechanical equipment. **Because there is the reported PCB result, additional investigation of the equipment and subsequent removal is warranted to alleviate potential future environmental concerns.** Appendix D presents the laboratory analytical results and Appendix F; Table 2 presents the summary of the surface soil PCB sampling results.

As shown in Appendix B, Site Photographs 1, 2 and 3, using Geoprobe technology, a total of four (4) one or two-inch (1" or 2") temporary monitoring wells were completed to an approximate depth of 30 feet below ground surface (bgs) and depending on on-site groundwater flow, these temporary monitoring wells served as upgradient, downgradient, and cross gradient sampling locations for the four (4) boring sites. The soil boring logs are included in Appendix C.

From each of the boreholes, soil samples were collected continuously from a depth ranging from 6" to five (5) feet bgs. Soils at depth were collected at four (4) foot intervals from a depth of 5 feet to 30 feet bgs or one foot into the water-bearing zone whichever was the most feasible. Samples selected for analysis were based on elevated readings on the organic vapor analyzer (OVA), identified soil staining, olfactory, or other field judgments. Groundwater samples were collected immediately below the soil/groundwater interface zone from the open borehole. Up to eight soils (one surface and at depth sample from each borehole and one trip blank) and five groundwater samples (one from each borehole at or below soil/groundwater interface and one trip blank) were submitted for analysis. Collected samples were analyzed for TPH by method Texas 1005, BTEX by

method SW8260, and RCRA (8) metals by 6000/7000 series method as presented in the Sample Analysis Table, Table 1. Additionally, groundwater samples were also analyzed for total dissolved solids by method 160.1 as presented in the Sample Analysis Table, Table 1. Accutest Laboratories of Houston, Texas analyzed the afore-mentioned samples.

The four soil boring locations are shown on Figure 1, Soil, Soil Boring/Groundwater and Debris Sample Locations Map. BTEX and TPH were not detected in the soil samples from the four boring locations SB1 – SB4. However, metals data for soil boring SB1 (13'-14') exceeded the applicable comparative values for Arsenic, Barium, and Lead. Soil boring SB 4 (10'-12') sample results exceeded the applicable comparative values for Arsenic and Lead.

These elevated metals results may be the result of historic industrial land usage. Because of the elevated metals results in the subsurface soils, additional investigations including establishing site-specific soil background levels or considering remedial activities per the state's Voluntary Cleanup Program are options for COH. Appendix D presents the laboratory analytical results and Appendix F; Table 3 presents a summary of the soil boring BTEX, TPH and RCRA 8 metals sampling results.

The four (4) groundwater samples were taken from the four soil boring locations shown on Figure 1, Soil, Soil Boring/Groundwater and Debris Sample Locations Map. The four (4) groundwater samples, MW-1 – MW-4, reported results for BTEX and TPH at non-detect and therefore, below the applicable TRRP Tier I PCLs for BTEX, TPH. However, the RCRA (8) metals reported results for MW-1 – MW-4 exceeded TRRP Tier I PCL groundwater values for Arsenic in MW-2, MW-3, and MW-4; Barium in MW-1 – MW-4; and Lead in MW-2 and MW-4. **These elevated metals results may be the result of historic industrial land usage. Because of the elevated metals results in the groundwater, additional investigations including establishing site-specific soil background levels or considering remedial activities per the state's Voluntary Cleanup Program are options for COH.** Appendix D presents the laboratory analytical results and Appendix F; Table 3 presents a summary of the groundwater BTEX, TPH, RCRA 8 metals and Total Dissolved Solids (TDS) sampling results.

■ Task 2 – Asbestos and Lead-Based Paint Survey of On-site Building

The exterior and interior physical conditions of the building are shown in Appendix A, Site Photographs 4 -18. Asbestos and lead-based paint surveys and other potential environmental concerns, information, findings and recommendations were used to determine potential abatement and remediation requirements for potential environmentally hazardous building materials.

HRE proposed and completed a visual inspection of the interior and exterior of the Fire Station #11 structure and collected several samples of potential asbestos-containing materials (ACM) and an acceptable number of building components were analyzed by Niton X-ray Fluorescence (XRF) technology for lead based paint concentration. Based on the XRF technology and visual condition

(deterioration, cracking, peeling, etc.) of the paint, HRE collected several bulk paint samples for Toxicity Characteristic Leachate Procedure (TCLP) Lead analysis as presented in the Sample Analysis Table, Table 1. These samples were collected by asbestos and lead-based paint certified professionals. As presented in the Sample Analysis Table, Table 1, the asbestos bulk samples were submitted to EMSL Analytical, Inc., Houston, Texas and the lead TCLP samples were submitted to EMSL Analytical, Inc., Indianapolis, Indiana for analysis.

Four (4) bulk samples were collected and analyzed for asbestos content during the asbestos survey. **From the 4 bulk samples collected, laboratory results indicated that friable ACM were present in Sample 1, window caulking, at 5% Chrysotile.** Other assumed ACM include the existing black chalk board located in the meeting room and any existing heating, ventilation and air conditioning (HVAC) duct and mastic and/or piping insulation that were inaccessible in the ceiling during the HRE asbestos survey conducted on November 9, 2005. Potential inaccessible asbestos materials should be addressed during planned building renovation or demolition activities. The asbestos sample locations are shown on Figure 2, Asbestos and Lead-based Paint Sample Locations Map. Appendix E presents the laboratory analytical results and Appendix F; Table 4 presents a summary of the asbestos sampling results.

The City of Houston has an approved “Asbestos Hazard Classification Protocol”. Based on the aforementioned asbestos findings, including the laboratory analysis, HRE observations, assumptions, and existing site conditions (deterioration of building materials, potential for disturbance and accessibility), the appropriate COH Response Actions under the approved “Asbestos Hazard Classification Protocol” are “C-2: Asbestos Present; Health Hazard, as defined by EPA, Abatement should be planned” and/or “C-3: Asbestos Present; No action necessary unless renovation, remodeling, or demolition is planned”.

A Niton XRF analyzer was utilized for field examination of painted surfaces so as to quickly determine those surfaces free from lead-based paint and therefore, to identify potential components suspected of containing lead-based paint for bulk sampling. Based on the XRF readings included in Appendix E, three (3) lead-based paint bulk samples, one each, were taken from the exterior of the North Garage Door (Sample 1A; layers of dark brown, light grey and dark green paint); exterior of the South Garage Door (Sample 3A; layers of beige, dark brown, light grey and dark green paint); and the interior upstairs door painted with dark green (Sample 2A). Samples 1, 2 and 3 were submitted to EMSL Analytical, Inc. for Lead TCLP analysis to determine the proper waste management of lead-based paint building materials. The lead concentrations reported by the laboratory were as follows: Sample 1A, 29 milligrams per liter (mg/L); Sample 2A, 95 mg/L and Sample 3A, 150 mg/L. The lead-based paint results for the subject building materials are 6 to 30 times greater than the EPA’s 5 mg/L concentration for acceptable landfill disposal. The subject lead concentrations are considered as Class I Hazardous for disposal purposes. The lead sample locations are shown on Figure 2, Asbestos and Lead-based Paint Sample Locations Map. Appendix E

presents the XRF and laboratory analytical results and Appendix F; Table 5 presents a summary of the lead sampling results.

The City of Houston has an approved “Lead-based Paint Hazard Classification Protocol”. Based on the aforementioned lead findings, including the laboratory analysis, HRE observations, assumptions, and existing site conditions (deterioration of building materials, potential for disturbance and accessibility), the appropriate COH Response Action under the approved “Lead-based Paint Hazard Classification Protocol” is “C-1: Lead Present; Health Hazard, as defined by applicable Federal, State and city regulations. Abatement should be a top priority ($\geq 5,000$ ppm or 0.5% by weight or $1\text{mg}/\text{cm}^2$).”

Other debris observed inside the building included ten (10) fluorescent light units containing light ballasts. If the light bulbs are crushed during removal or demolition, they may release mercury vapors into the atmosphere and become a hazardous waste residue, thus HRE recommends the light bulbs be recycled intact. Under EPA guidelines, pre-1979 fluorescent lighting systems contain PCB light ballasts. All light ballasts manufactured after July 1, 1978 are required to be clearly marked “No PCBs”. Unmarked light ballasts or ballasts without a date code should be assumed to contain PCBs and properly disposed of or recycled. The existing light ballasts, as shown in Photograph 16, Appendix B, Site Photographs was clearly marked as non-PCB, however; in the best interest of protecting the environment, the existing fluorescent light units and light ballasts should be properly disposed of as Class II non-hazardous waste material.

▪ **Task 3 – Sampling of Waste Piles and Debris Materials for Disposal Purposes —**

Because there were piles of waste materials and debris on-site, HRE performed sampling of these materials for waste disposal purposes. HRE collected up to two (2) samples of these materials and submitted them for analysis by the full scan TCLP, except for pesticides and herbicides analysis, but included Reactivity, Corrosivity, and Ignitability (RCI) as presented in the Sample Analysis Table, Table 1. The results of the sample analysis were compared to the Environmental Protection Agency (EPA) hazardous waste classification values in Title 40 Code of Federal Regulations (CFR) Part 261.24, primarily for waste classification and disposal purposes.

The two waste piles and debris sample locations are shown on Figure 1, Soil, Soil Boring/Groundwater and Debris Sample Locations Map. The reported results for the TCLP Volatile Organic Analysis (VOA) and Acid, Base, Neutral (ABN) for both DS1 and DS2 were not detected. The TCLP metals results for both DS1 and DS2 were reported as below the reporting limit and below the EPA regulatory limit for hazardous wastes. The reactivity results reported for DS1 and DS2 were below the reporting limit and not-detected above regulatory limits. Therefore, the reported laboratory results for the two debris samples, DS1 and DS2, are non-

hazardous and further action is warranted. Appendix D presents the laboratory analytical results and Appendix F; Table 6 presents a summary of the waste piles and debris TCLP VOA, ABN, Metals and Reactivity sampling results.

- **Task 4 – Phase II Site Investigation Report —**

HRE details of the Limited Phase II Site Investigation including sample location map(s), summary tables of reported analytical results including applicable TRRP Tier I PCL values, and other appropriate levels for asbestos and lead, and a conclusions and recommendations section are presented in the text of this report in the following Sections:

Section 2.0 Field Sampling Effort;

Section 3.0 Analytical Results and Findings; and

Section 4.0 Conclusions and Recommendations.

2.0 FIELD SAMPLING EFFORT

On 27 October 2005, Ximena Simmons, Daniel Grissom, and Robert Deese of HRE and Jerry Green and Matt Smith of PSG Technical Services, Inc. (PSG) conducted Tasks 1 (soil & groundwater investigation) and Task 3 (debris sampling) of the limited Phase II ESA at the subject property. The asbestos and lead-based paint surveys were conducted on 9 November 2005 by Robert Deese, Daniel Grissom, Detora Baker, Mike King, Michelle Pena, Lyle Binger and Margaret Greene of HRE. The licenses of the certified asbestos and lead-based paint personnel are shown in Appendix A. Prior to mobilization, Texas One Call was notified of the planned drilling activities so that underground pipelines and utilities could be located and marked prior to the Phase II drilling operations. The physical conditions of the property are shown in Appendix B, Site Photographs.

2.1 Task 1 Surface Soil, Soil and Groundwater and Task 3 Waste Piles and Debris Field Effort

A total of two (2) hand auger surface soil samples were collected from areas of potential concern on-site to a depth of <1 foot below ground surface (bgs). The areas of concern were the pole-mounted electrical transformers located at the north property line and some old platform-mounted mechanical equipment located adjacent to the east property line. These locations are shown on Figure 1, Soil, Soil Boring/Groundwater and Debris Sample Locations Map.

PSG provided the direct push drilling of a total of four (4) soil boring locations completed to an approximate depth of 28 feet below ground surface (bgs) to investigate potential impacts from the subject property use and historical adjacent land use. The soil boring logs are included in Appendix C. The locations of the soil borings are shown on Figure 1, Soil, Soil Boring/Groundwater and Debris Sample Locations Map and in Photographs 1 through 3 included in Appendix B, Site Photographs. The objective of the soil and groundwater sampling effort was to investigate potential environmental impacts for the groundwater beneath the site and potential impacts to the soils at the boring locations.

- The four soil borings were advanced:
 - MW-1 – generally at the rear of the property near the pole mounted transformers.
 - MW-2 – generally in the area of the western boundary in the concrete driveway area.
 - MW-3 – generally in the area of the western boundary along the side of the building.
 - MW-4 – generally behind the storage shed attached at the rear of the property.

The four temporary monitoring well (MW) locations, the two Surface Soil, four Soil Boring and Groundwater locations, and Debris locations are shown on the Sample Location Map, provided as Figure 1. The Appendix A, Site Photographs 1 through 3 reveals the boring locations that became the groundwater sampling locations. Boring logs providing information by four (4) foot sample intervals including sample recovery, moisture content, odor notations, organic vapor analyzer (OVA) readings, and a description of observed soils are provided as

Appendix C. The TRRP defines surface soils at a commercial/industrial sites as the interval of 0-5 feet bgs and at-depth soils as greater than 5 feet bgs (30 Texas Administrative Code [TAC] 350). From each of the boreholes, soil samples were collected continuously from a depth ranging from 6" to 5 feet bgs. The at-depth soils were collected from a depth greater than 5 feet bgs or one foot into the water-bearing zone, whichever came first.

At the time of collection, soil samples were field screened for the presence of organic vapors with the use of a Photo Ionization Detector (PID) also known as an organic vapor analyzer (OVA). Four foot sample intervals were field screened and those with elevated readings on the organic vapor analyzer (OVA), identified soil staining, olfactory, or other field judgments were selected for analytical testing.

Groundwater was generally encountered at approximately 20 feet bgs. The one inch temporary monitoring wells were constructed from polyvinyl chloride (PVC) tubing with a five foot section of 0.010 inch slotted PVC placed at a boring interval of approximately 23 to 28 feet bgs. Using a peristaltic pump allowed for a low flow purge and collection rate of groundwater samples to ensure that the collected groundwater samples were representative of the groundwater beneath the site. Sample turbidity was not an issue and therefore, it was not necessary to filter the collected groundwater samples.

2.2 Task 1 and Task 3 Sampling Methodology

The constituents of concern (the selected parameters to be analyzed) were selected based on the historical land use and vicinity land use. Because the subject property had formerly been the site of Fire Station #11 and the vicinity land usage, as described in the July 2005 TLC Phase I ESA as "an unusually high number of sites within the boundaries of the project area", the potential constituents of concern were generally hydrocarbons, metals, and in the area of the pole-mounted transformers, Polychlorinated Biphenyls (PCBs).

As per the authorized scope of work, the two hand augered surface soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) by method TX 1005, Benzene, Toluene, Ethyl benzene, and Xylene (BTEX) by method SW846 8021B, PCBs by method SW8081, and Resource Conservation and Recovery Act (RCRA) eight (8) metals by 6000/7000series method. Soil Samples collected from the boring locations were analyzed for TPH by method TX 1005, BTEX by method SW846 8021B, and at-depth soils were also analyzed for RCRA (8) metals by 6000/7000 series method. The afore-mentioned sample analyses are summarized in the Table 1, Sample Analysis Table.

Because of schedule constraints at the selected analytical laboratory, Accutest Laboratories of Houston, Texas, the BTEX analysis method used was SW846 8021B instead of the SW846 8260 method noted in the scope of work. The substituted BTEX method allows for greater instrument sensitivity and meets the project sampling requirements. Collected soil samples from the boreholes, a total of eight samples, were analyzed for TPH by method TX1005, BTEX by method SW846 8021B. The soil samples at depth in the vicinity of the groundwater were analyzed for RCRA 8 metals by 6000/7000series method.

Groundwater samples collected from the temporary monitoring wells were subjected to TPH by method TX 1005, BTEX by method SW846 8021B, RCRA 8 metals by method SW846 6010B/7470A and Total Dissolved Solids (TDS) by method EPA 160.1

The two Task 3 debris samples were analyzed for the full scan Toxicity Characteristic Leaching Procedure (TCLP), except for pesticides and herbicides analysis, but including Reactivity, Corrosivity, and Ignitability (RCI). The analytical method used was SW846 8260B and 1311. Due to the rock type sample matrix, the debris samples could not be analyzed for ignitability.

Trip and temperature blanks were also submitted for transport quality assurance and quality control purposes. Collected samples were placed in laboratory provided sample containers and labeled using the following nomenclature:

- SS#1 and SS#2 – identify the hand augered surface soil samples collected generally at the rear of the site.
- SB – 1 through SB – 4 to identify soil samples collected from each of the four boreholes. Additionally, the depth at which the soils were collected was noted, such as 0' – 4'. The 0' – 4' refers to the sample interval where the soil sample was collected.
- MW-1 through MW-4 – identify groundwater samples collected from each of the four temporary monitoring wells.
- DS#1 and DS#2 – identify the collected debris samples.

The Task 1 and 3 collected surface soil, soil, groundwater and debris samples were packed in the laboratory provided sample coolers and packed on ice in order to preserve the sample integrity. Chain of Custody (COC) forms which include sample identification names, i.e., MW-1, were completed. The samples were delivered for chemical analysis to Accutest Laboratories in Houston, Texas the following day. A listing of the above-mentioned samples and proposed analysis is provided in the Task 1-3 Sample Analysis Table 1.

2.3 Task 2 Asbestos and Lead-based Paint Field Effort

Based on historical data, the fire station building may have existed from the 1940's to the present (see TLC Phase I ESA July 2005 report), thus the presence of asbestos containing materials (ACM) and lead-based paint were suspected in the building materials.

Under Task 2, HRE collected representative building materials and paint chips and submitted them to an approved EPA and state laboratory for ACM testing by polarized light microscopy (PLM) EPA 600/R-93/116 and TCLP Lead testing by the SW846 1311/7420 methodology. Paint chips selected for TCLP Lead analysis were field screened using a portable x-ray fluorescence (XRF) instrument.

The Task 2 asbestos and lead samples were collected, labeled, and placed in appropriate plastic laboratory industry containers to preserve the sample integrity. As shown on Figure 2, Asbestos and Lead-based Paint Sample Locations Map, the asbestos and paint samples were labeled numerically as 1 through 4 and 1A through 3A, respectively. The Appendix A, Site

Photographs 4-18 shows the physical conditions of the sampled ACM and lead-based paint. COC forms which included the sample identification numbers were completed. The asbestos and lead samples were delivered to EMSL Analytical, Inc. for chemical analysis. A listing of the asbestos and lead-based paint samples and proposed analysis is presented in Sample Analysis Table 1.

3.0 ANALYTICAL RESULTS AND FINDINGS

Summary tables of analytical results are presented in Appendix F, Table 2 Surface Soils: BTEX, TPH, PCBs and Metals; Table 3 Soil Boring Soils: BTEX, TPH and Metals; Table 3 Groundwater: BTEX, TPH, Metals and TDS; Table 4 Asbestos; Table 5 TCLP Lead and Table 6 TCLP VOA, ABN, metals and Reactivity. The analytical results reports provided by Accutest Laboratories and EMSL Analytical, Inc., including Chain of Custody forms are presented in Appendix D for the soil, groundwater, and debris samples and Appendix E for the asbestos and lead samples.

The Texas Risk Reduction Program (TRRP) at 30 Texas Administrative Code (TAC) Chapter 350 provides a corrective action process directed toward protection of human health and the environment balanced with the economic welfare of the citizens of Texas. TRRP uses a tiered approach incorporating risk assessment techniques to help focus investigations, to determine appropriate protective concentration levels for human health, and when necessary, for ecological receptors.

Laboratory reported analytical results of the Task 1 sampling effort were compared to the TRRP Tier 1 Protective Concentration Levels (PCLs) as a guide for evaluating potential on-site impacts. Tier I PCLs are a screening tool providing protective concentration levels. The Analytical Result Summary Tables showing the comparison between regulatory critical Tier I PCLs and site specific results follow at the end of this section. The Task 1 Analytical Result Summary Tables are organized by soil and groundwater results. The Tier I PCLs used for comparison with site specific results were those for a 30-acre source site at an industrial/commercial site. These were selected because they are conservative Tier I PCLs for an industrial/commercial site. For each analyte, the lowest applicable PCL was selected as the associated critical PCL. Exceedances of the critical PCLs are highlighted in Appendix E, Summary Tables 2 and 3.

The two collected debris samples in Task 3 were subjected to analysis for waste disposal purposes and were compared to the EPA hazardous waste classification values in Title 40 Code of Federal Regulations (CFR) Part 261.24. The results of the two debris samples are presented in Appendix E, Summary Table 6.

3.1 Task 1 Soil and Groundwater Findings

A total of two (2) hand auger surface soil samples, SS#1 and SS#2, were collected from areas of potential concern on-site to a depth of <1 foot below ground surface (bgs) and were subjected to TPH, BTEX, PCB and RCRA 8 metals analysis. Both SS#1 and SS#2 reported results for BTEX were not detected. TPH analysis reported results for SS#1 were 25 mg/kg for the C₁₂-C₂₈ range and 24.5 mg/kg for the C₂₈-C₃₅ range. The Texas Commission on Environmental Quality's (TCEQ) Texas Risk Reduction Program (TRRP) Tier I Protective Concentration Levels (PCLs) for TPH at these ranges is 300 mg/kg. Therefore at the reported TPH concentrations, these sampling results are below the Tier I PCLs. Additionally, the SS#2 sample result for Aroclor 1254 was 0.0314 mg/kg which is below the default PCB Tier I PCL at 5.3 mg/kg. SS#1 results for Cadmium was 3.9 mg/kg; Lead was 218 mg/kg; and Mercury was 0.6 mg/kg. At these concentrations, SS#1 results for Cadmium, Lead, and Mercury are

above the TRRP PCL and/or the Texas –Specific Background Concentration at 0.75 mg/kg, 15 mg/kg, and 0.04 mg/kg, respectively. Table 2 presents a summary of the analytical results for the surface soil samples.

A total of four (4) one-inch (1”) temporary monitoring wells were completed to a depth of 28 feet bgs. Surface soils, at-depth soils, and groundwater samples were collected from these four boring locations. The collected soils samples were subjected to BTEX, TPH, and metals analysis. Tabulated reported results for soils and groundwater from each of the boring locations are summarized and presented in Table 3. Groundwater samples were subjected to BTEX, TPH, RCRA (8) metals, and TDS analysis. Reported soil sample results for the eight samples were not detected for both BTEX and TPH. The metals data for sample SB1 (13’-14’) was below the applicable TRRP PCL or the Texas –specific background level except for Arsenic at 9.5 mg/kg, Barium at 377 mg/kg, and Lead at 16.5 mg/kg. The metals data for sample SB4 (10’-12’) was below the applicable TRRP PCL or the Texas –specific background level except for Arsenic at 7.6 mg/kg and Lead at 20.8 mg/kg. The comparative values for Arsenic, Barium and Lead are 5.9 mg/kg, 300 mg/kg, and 15mg/kg, respectively.

The reported groundwater results for BTEX and TPH were also not detected. However, the RCRA (8) metals reported results did include some concentrations above the method reporting limit. Arsenic concentrations were reported as non-detect for MW-1; 0.0197 mg/L for MW-2; 0.0463 mg/L for MW-3; and 0.117 mg/l for MW-4. The TRRP Tier I PCL value for Arsenic is 0.01 mg/L. MW-2, MW-3, and MW-4 Arsenic results are above the Tier I PCL groundwater value. Barium concentrations were reported as 9.79 mg/L for MW-1; 2.07 mg/L for MW-2; 6.883 mg/L for MW-3; and 6.53 mg/l for MW-4. The TRRP Tier I PCL value for Barium is 2 mg/L. MW-1, MW-2, MW-3, and MW-4 Barium results are above the Tier I PCL groundwater value. Lead concentrations were reported as 0.0077 mg/L for MW-1; 0.0377 mg/L for MW-2; 0.0092 mg/L for MW-3; and 0.0231 mg/l for MW-4. The TRRP Tier I PCL value for Lead is 0.015 mg/L. MW-2 and MW-4 Lead results are above the Tier I PCL groundwater value.

3.2 Task 2 Asbestos and Lead-based Paint Findings

During the Task 2 asbestos sampling, HRE observed that the building materials were homogenous, thus requiring only one sample from each homogenous building material to be collected and analyzed. The lead-based paint underwent screening sampling using the XRF instrument to primarily detect the presence of lead and identify locations for collecting lead-based paint chip samples for TCLP analysis. The analytical asbestos and lead-based paint results reports provided by EMSL Analytical, Inc., including Chains of Custody (COC) and lead-based paint XRF results are provided in Appendix E.

Four (4) bulk samples were collected and tested for asbestos content during the asbestos survey. From the 4 bulk samples taken, results indicated that friable asbestos containing materials (ACM) were present in Sample 1 window caulking at 5% Chrysotile. Other assumed ACM include the existing black chalk board located in the meeting room, any existing heating, ventilation and air conditioning (HVAC) duct and mastic and/or piping insulation that was inaccessible in the ceiling during the HRE asbestos survey conducted on November 9, 2005. Unforeseen potential asbestos should be addressed during planned building renovation or demolition activities. The ACM analytical summary is presented in Appendix F, Table 4.

As shown below, “The City of Houston has the following Asbestos Hazard Classification Protocol”:

ASBESTOS HAZARD CLASSIFICATION PROTOCOL

Hazard Category	Response Action
C-1: Asbestos Present	Serious Health Hazard, as defined by EPA. Abatement should be a top priority.
C-2: Asbestos Present	Health Hazard, as defined by EPA; Abatement should be planned.
C-3: Asbestos Present	No action necessary unless renovation, remodeling, or demolition is planned.
B-1: Asbestos Present	Contains 1% asbestos, or less, not regulated by Texas Department of Health (TDH).
B-2: Asbestos Present	ACM is adequately enclosed within the area of concern.
B-3: Asbestos Present	ACM is adequately encapsulated.
A: No Asbestos Found	
A-1: Asbestos Abated	Identified asbestos containing materials (ACM) have been abated.

Based on the above-mentioned findings, including the laboratory analysis, HRE observations and assumptions and existing site conditions (deterioration of building materials, potential for disturbance and accessibility), the appropriate COH Response Actions are “C-2: *Asbestos Present; Health Hazard, as defined by EPA, Abatement should be planned*” and/or “C-3: *Asbestos Present; No action necessary unless renovation, remodeling, or demolition is planned*”.

HRE also conducted testing to identify painted surfaces/coatings, which may contain lead of 1.0 milligram per square centimeter (mg/cm²). The EPA regulations, EPA 40 Code of Federal Regulations (CFR) Part 745 and the U.S. Department of Housing and Urban Development (HUD) regulations consider a lead content of 0.5% by weight [5,000 parts per million (ppm)] or 1.0 milligram per square centimeter (mg/cm²) to be the level at which a lead hazard exists. The Occupational Safety and Health Administration (OSHA) regulation may apply to workers during any demolition and/or renovation if the lead concentration is >600 ppm or 0.06% by weight but <5,000 ppm or 0.5% by weight. The OSHA personnel exposure limit (PEL) is 50 micrograms per cubic meter (ug/m³) and the worker action level is 30 ug/m³.

As a hazard, EPA and HUD define “lead-based paint” as having a dried paint film with a lead concentration equal to or greater than 0.5% lead by weight when measured by laboratory analysis or portable x-ray fluorescence (XRF) instrumentation. As an OSHA Construction Standard, paint containing any detectable level of lead is defined as a hazard. Deteriorated lead-based paint may become airborne as dust and create an environmental health hazard for workers and other individuals.

A Niton XRF analyzer was utilized for all painted surfaces so as to quickly determine those surfaces free from lead-based paint so that components suspected of containing lead-based paint could be identified for bulk sampling. Based on the XRF readings included in Appendix E, three (3) lead-based paint bulk samples (one each) were taken from the exterior of the North Garage Door (Sample 1A; layers of dark brown, light grey and dark green paint); exterior of the South Garage Door (Sample 3A; layers of beige, dark brown, light grey and dark green paint); and the interior upstairs door painted with dark green (Sample 2A). Each sample was composited and submitted to EMSL Analytical, Inc. for TCLP analysis to determine the proper waste management of lead-based paint building materials. The lead concentrations resulting from the laboratory were Sample 1A, 29 milligrams per liter (mg/L); Sample 2A, 95 mg/L and Sample 3A, 150 mg/L. The lead-based paint results for the subject building materials are 6 to 30 times greater than the EPA’s 5 mg/L concentration for acceptable landfill disposal. The lead analytical summary is presented in Appendix E, Table 5.

The City of Houston has the following Lead-based Paint Hazard Classification Protocol:

LEAD-BASED PAINT HAZARD CLASSIFICATION PROTOCOL

Hazard Category	Response Action
C-1: Lead Present	Health Hazard, as defined by applicable Federal, State and city regulation. Abatement should be a top priority. ($\geq 5,000$ ppm or 0.5% by weight or $1\text{mg}/\text{cm}^2$).
C-2: Lead Present	No action necessary when lead levels are found below applicable Federal and State Regulatory action levels. OSHA Regulations may apply to workers during demolition or renovations. (>600 ppm or 0.06% but $<5,000$ ppm or 0.5% by weight or $1\text{mg}/\text{cm}^2$).
A: Allowable Lead Level	(≤ 600ppm or 0.06% by weight) as defined by the U.S. Consumer Product Safety Commission (CPSC) report dated Oct. 1, 1996).
A-1: Lead Abated	Once identified; lead containing materials (LCM) have been abated.

Based on the above-mentioned findings, including the laboratory analysis, HRE observations and assumptions and existing site conditions (deterioration of building materials, potential for disturbance and accessibility), the appropriate COH Response Action is “C-1: Lead Present; Health Hazard, as

defined by applicable Federal, State and city regulations. Abatement should be a top priority ($\geq 5,000$ ppm or 0.5% by weight or $1\text{mg}/\text{cm}^2$)."

3.3 Task 3 Debris Findings

The two Task 3 debris samples were analyzed for the full scan Toxicity Characteristic Leaching Procedure (TCLP), except for pesticides and herbicides analysis, but including Reactivity, Corrosivity, and Ignitability (RCI). Due to the rock type sample matrix, the debris samples could not be analyzed for ignitability. Appendix E, Table 6 provides a summary of the reported results for the two debris samples, DS1 and DS2. The reported results for the TCLP Volatile Organic Analysis (VOA) and Acid, Base, Neutral (ABN) for both DS1 and DS2 were non-detect. The TCLP metals results for both DS1 and DS2 were reported as below the reporting limit and below the EPA regulatory limit for hazardous wastes. The reactivity results reported for DS1 and DS2 were non-detect (below the reporting limit). Therefore, the reported laboratory results for the two debris samples, DS1 and DS2, are non-hazardous.

Other debris observed inside the building included ten (10) fluorescent light units containing light ballasts. If the light bulbs are crushed during removal or demolition, they may release mercury vapors into the atmosphere and become a hazardous waste residue, thus HRE recommends the light bulbs be recycled intact. Under EPA guidelines, pre-1979 fluorescent lighting systems contain PCB light ballasts. All light ballasts manufactured after July 1, 1978 are required to be clearly marked "No PCBs". Unmarked light ballasts or ballasts without a date code should be assumed to contain PCBs and properly disposed of or recycled. The existing light ballast, as shown in Photograph 16, Appendix A, Site Photographs was clearly marked as non-PCB, however; in the best interest of protecting the environment, they should be properly disposed of Class II non-hazardous waste material.

TABLE 1
SAMPLE ANALYSIS TABLE

TASK 1: Soils Investigation				
Sample ID	Lab ID	Date Collected	Matrix	Analysis
SS#1	T11758-1	10/27/2005	Soil	TPH by TX1005 BTEX by SW846 8021B PCBs by SW846 8082
SS#2	T11758-1	10/27/2005	Soil	TPH by TX1005 BTEX by SW846 8021B PCBs by SW846 8082
Trip Blank	T11758-1	10/27/2005	Water	TPH by TX1005 BTEX by SW846 8021B
SB-1 (2'- 3')	T11759-1	10/27/2005	Soil	TPH by TX1005 BTEX by SW846 8021B
SB-1 (13'- 14')	T11759-2	10/27/2005	Soil	TPH by TX1005 BTEX by SW846 8021B
SB-2 (2'- 3')	T11759-3	10/27/2005	Soil	TPH by TX1005 BTEX by SW846 8021B
SB-2 (14'- 15')	T11759-4	10/27/2005	Soil	TPH by TX1005 BTEX by SW846 8021B
SB-3 (2'- 3')	T11759-5	10/27/2005	Soil	TPH by TX1005 BTEX by SW846 8021B
SB-3 (7'- 8')	T11759-6	10/27/2005	Soil	TPH by TX1005 BTEX by SW846 8021B
SB-4 (3'- 4')	T11759-7	10/27/2005	Soil	TPH by TX1005 BTEX by SW846 8021B
SB-4 (10'- 12')	T11759-8	10/27/2005	Soil	TPH by TX1005 BTEX by SW846 8021B
Trip Blank	T11759-9	10/27/2005	Water	BTEX by SW846 8021B

TABLE 1
SAMPLE ANALYSIS TABLE (continued)

TASK 1: Groundwater Investigation				
Sample ID	Lab ID	Date Collected	Matrix	Analysis
MW-1	T11756 - 1	10/27/2005	Water	TPH by TX1005 BTEX by SW846 8021B RCRA (8) Metals by SW846 6010B & 7470A TDS by EPA 160.1
MW-2	T11756 - 2	10/27/2005	Water	TPH by TX1005 BTEX by SW846 8021B RCRA (8) Metals by SW846 6010B & 7470A TDS by EPA 160.1
MW-3	T11756 - 3	10/27/2005	Water	TPH by TX1005 BTEX by SW846 8021B RCRA (8) Metals by SW846 6010B & 7470A TDS by EPA 160.1
MW-4	T11756 - 4	10/27/2005	Water	TPH by TX1005 BTEX by SW846 8021B RCRA (8) Metals by SW846 6010B & 7470A TDS by EPA 160.1
Trip Blank Aqueous	T11756 - 5	10/27/2005	Water	BTEX by SW846 8021B

TPH = Total Petroleum Hydrocarbons

BTEX = Benzene, Toluene, Ethyl Benzene, and Xylene

RCRA (8) Metals = Resource, Conservation, and Recovery Act (8) Metals

TDS = Total Dissolved Solids

TABLE 1
SAMPLE ANALYSIS TABLE (continued)

Task 2: Asbestos and Lead-Based Paint Surveys				
Sample ID	Lab ID	Date Collected	Matrix	Analysis
1	150505747-0001	11/9/2005	Asbestos	Polarized Light Microscopy EPA Test Method 600/R-93/116
2	150505747-0002	11/9/2005	Asbestos	Polarized Light Microscopy EPA Test Method 600/R-93/116
3	150505747-0003	11/9/2005	Asbestos	Polarized Light Microscopy EPA Test Method 600/R-93/116
4	150505747-0004	11/9/2005	Asbestos	Polarized Light Microscopy EPA Test Method 600/R-93/116
1A	0001	11/9/2005	Lead	Toxicity Characteristic Leachate Procedure Lead SW846-1311/7420
2A	0002	11/9/2005	Lead	Toxicity Characteristic Leachate Procedure Lead SW846-1311/7420
3A	0003	11/9/2005	Lead	Toxicity Characteristic Leachate Procedure Lead SW846-1311/7420

TABLE 1
SAMPLE ANALYSIS TABLE (continued)

Task 3: Waste Pile and Debris Materials for Disposal Purposes				
Sample ID	Lab ID	Date Collected	Matrix	Analysis
DS1	T11757-1	10/27/2005	Soil	TCLP VOA by method SW846 8260B TCLP ABN by method SW 846 8270C TCLP Metals by method SW 846 1311 Reactivity and Corrosivity
DS2	T11757-2	10/27/2005	Soil	TCLP VOA by method SW846 8260B TCLP ABN by method SW 846 8270C TCLP Metals by method SW 846 1311 Reactivity and Corrosivity

TCLP VOA = Toxicity Characteristic Leachate Procedure for Volatile Organic Analysis

TCLP ABN = Toxicity Characteristic Leachate Procedure for Acid, Base, and Neutral

Figure 1
Soil, Soil Boring/Groundwater and Debris Sample Locations Map

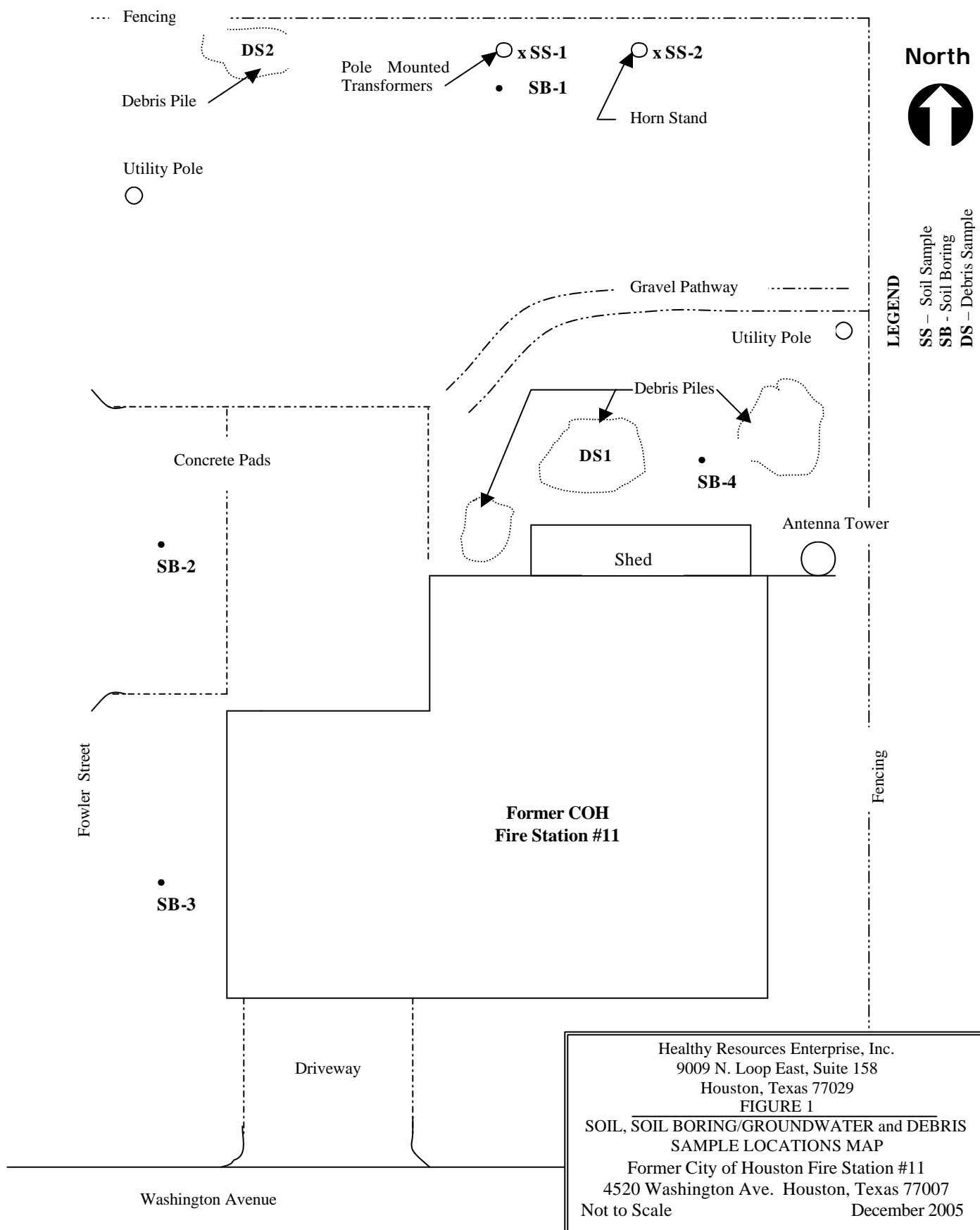
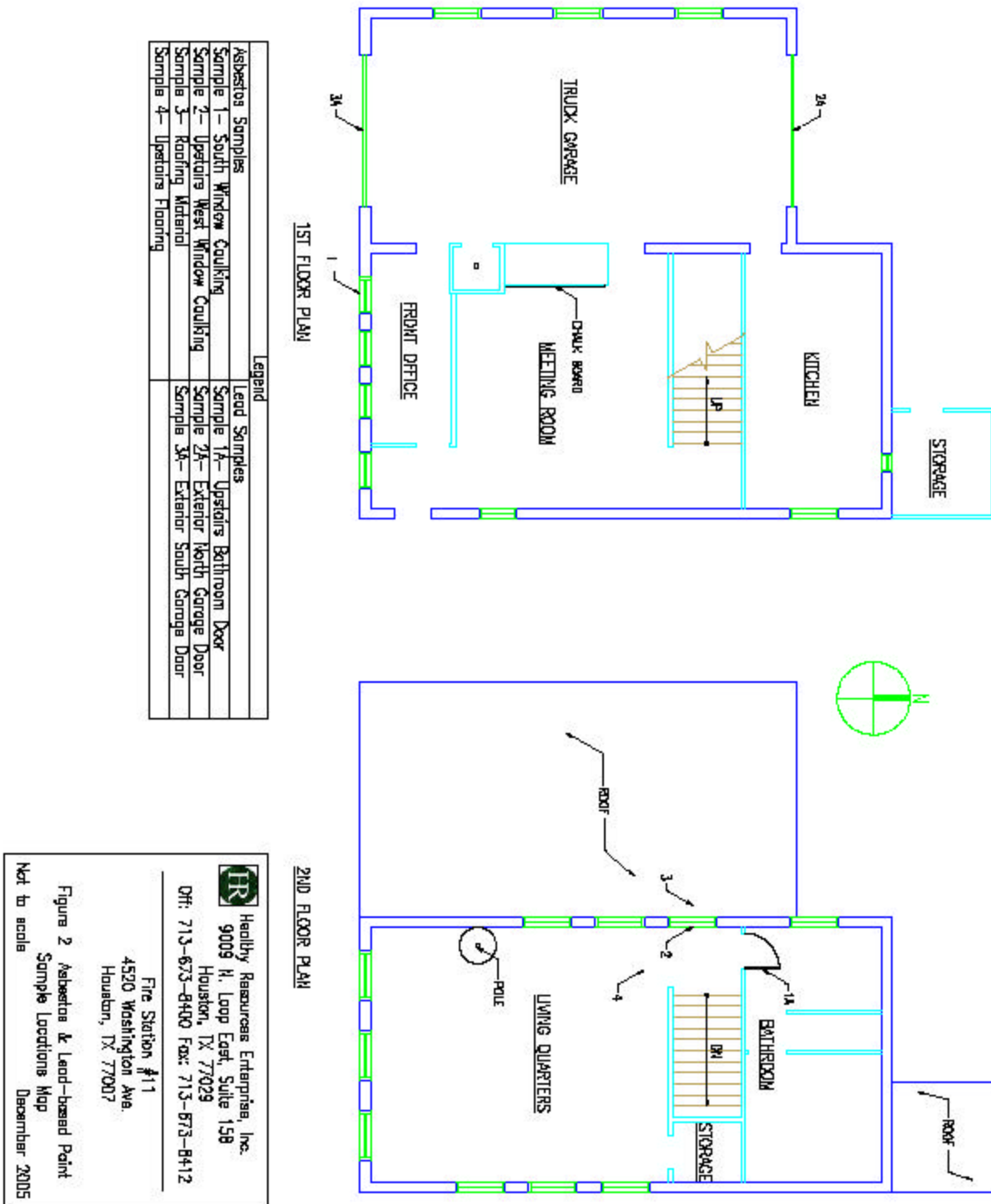


Figure 2
Asbestos and Lead-based Paint Sample Locations Map



SECTION 4.0

CONCLUSIONS & RECOMMENDATIONS

Conclusions and recommendations are provided in this section. Reportedly, the subject property was formerly used as the City of Houston Fire Station #11 and was in operation potentially as early as the 1940's. A Phase I ESA was performed by TLC Engineering, Inc. (TLC) in July 2005. The Phase I ESA recommendations noted the following "Research and investigation of available records identified an unusually high number of sites within the boundaries of the project area." Further the report noted "Prior commercial and industrial land use within a close proximity to the project site has also created areas of concern."

Based on the Phase I report findings and recommendations, a limited Phase II ESA was conducted on 27 October 2005 and the building asbestos and lead-based paint surveys conducted on 9 November 2005. Surface, at-depth soils, and groundwater samples were collected and subjected to chemical analysis. The reported analytical results for Task 1 were compared to the TCEQ TRRP Tier I PCLs dated April 12, 2005. Metals data was either compared to the appropriate TRRP PCL or the Texas-specific background concentration, as per 30 TAC 350.51(m). Task 2 Lead-based paint and Task 3 debris samples were primarily for waste disposal purposes and compared to the Environmental Protection Agency (EPA) hazardous waste classification values for lead and other constituents in Title 40 Code of Federal Regulations (CFR) Part 261.24.

4.1 Task 1 Conclusions and Recommendations

The two surface soil samples, SS#1 and SS#2, reported results are below the applicable TRRP Tier I PCLs for BTEX, TPH, and PCBs. The reported results for BTEX and TPH for the eight collected soil samples from the four soil boring locations, SB-1 – SB-4, were non-detect and therefore, below the applicable TRRP Tier I PCLs for BTEX, TPH.

SS#2 sample result for Aroclor 1254 was 0.0314 mg/kg, which is below the default PCB Tier I PCL at 5.3 mg/kg. **However, because there was a reported PCB result, additional investigation and equipment removal may be warranted to alleviate potential future concerns.** SS#1 metals result for Cadmium was 3.9 mg/kg; Lead was 218 mg/kg; and Mercury was 0.6 mg/kg. At these concentrations, SS#1 results for Cadmium, Lead, and Mercury are above the TRRP PCL and/or the Texas –Specific Background Concentration at 0.75 mg/kg, 15 mg/kg, and 0.04 mg/kg, respectively. **These metals results may be the result of historic industrial land usage. Because of the elevated metals results in the surface soils, additional investigations including establishing site-specific soil background levels or considering remedial activities per the state's Voluntary Cleanup Program are options for COH.**

The soil samples from the four boring locations (SB1 – SB4), reported BTEX and TPH results of non-detect. However, metals data for SB1 (13'-14') exceeded the applicable comparative values for Arsenic, Barium, and Lead. SB 4 (10'-12') sample results exceeded the applicable comparative values for Arsenic and Lead. **These elevated metals results may be the result of historic industrial land usage. Because of the elevated metals results in the subsurface soils, additional investigations including establishing site-specific soil background levels or considering remedial activities per the state's Voluntary Cleanup Program are options for COH.**

The four (4) groundwater samples, MW-1 – MW-4, reported results for BTEX and TPH at non-detect and therefore, below the applicable TRRP Tier I PCLs for BTEX, TPH. However, the RCRA (8) metals reported results for MW-1 – MW-4 included exceedances for Arsenic for MW-2, MW-3, and MW-4; Barium for MW-1 – MW-4; and Lead for MW-2 and MW-4. **These elevated metals results may be the result of historic industrial land usage. Because of the elevated metals results in the groundwater, additional investigations including establishing site-specific soil background levels or considering remedial activities per the state's Voluntary Cleanup Program are options for COH.**

The above-mentioned soil, soil boring/groundwater sampling regulatory analytical results are summarized and presented in Appendix F, Sampling Analytical Summary Tables 2 and 3.

4.2 Task 2 Asbestos and Lead-based Paint Conclusions and Recommendations

Four (4) bulk samples were collected and tested for asbestos content during the asbestos survey. From the 4 bulk samples taken, results indicated that friable asbestos containing materials (ACM) were present in Sample 1 window caulking at 5% Chrysotile. Other assumed ACM would be the existing black chalk board located in the meeting room, any existing heating, ventilation and air conditioning (HVAC) duct and mastic and/or piping insulation that was inaccessible in the ceiling during HRE November 9, 2005 asbestos survey. Unforeseen potential asbestos will be addressed during planned building renovation or demolition activities. The Asbestos Analytical Summary is present in Table 4.

The City of Houston has an approved “Asbestos Hazard Classification Protocol”. Based on the above-mentioned asbestos findings, including the laboratory analysis, HRE observations and assumptions and existing site conditions (deterioration of building materials, potential for disturbance and accessibility), the appropriate COH Response Actions under its approved “Asbestos Hazard Classification Protocol” are “C-2: Asbestos Present; Health Hazard, as defined by EPA, Abatement should be planned” and/or “C-3: Asbestos Present; No action necessary unless renovation, remodeling, or demolition is planned”.

A Niton XRF analyzer was utilized for all painted surfaces so as to quickly determine those surfaces free from lead-based paint so that components suspected of containing lead-based paint could be identified for bulk sampling. Based on the XRF readings included in Appendix E, three (3) lead-based paint bulk samples (one each) were taken from the exterior of the North Garage Door (Sample 1A; layers of dark brown, light grey and dark green paint); exterior of the South Garage Door (Sample 3A; layers of beige, dark brown, light grey and dark green paint); and the interior upstairs door painted with dark green (Sample 2A). Each sample was composited and submitted to EMSL Analytical, Inc. for TCLP analysis to determine the proper waste management of lead-based paint building materials. The lead concentrations resulting from the laboratory were Sample 1A, 29 milligrams per liter (mg/L); Sample 2A, 95 mg/L and Sample 3A, 150 mg/L. The lead-based paint results for the subject building materials are 6 to 30

times greater than the EPA's 5 mg/L concentration for acceptable landfill disposal. The Lead-based Paint Analytical Summary is presented in Table 5.

The City of Houston has an approved “Lead-based Paint Hazard Classification Protocol”. Based on the above-mentioned lead findings, including the laboratory analysis, HRE observations and assumptions and existing site conditions (deterioration of building materials, potential for disturbance and accessibility), the appropriate COH Response Action under its approved “Lead-based Paint Hazard Classification Protocol” is “C-1: Lead Present; Health Hazard, as defined by applicable Federal, State and city regulations. Abatement should be a top priority ($\geq 5,000$ ppm or 0.5% by weight or $1\text{mg}/\text{cm}^2$).”

4.3 Task 3 Debris Conclusions and Recommendations

The reported results for the TCLP VOA and TCLP ABN for both DS1 and DS2 were non-detect. The TCLP metals results for both DS1 and DS2 were reported as below the reporting limit and below the EPA RCRA metals regulatory limits for hazardous wastes. The reactivity results reported for DS1 and DS2 were non-detect (below the reporting limit). Therefore, the reported laboratory results for the two debris samples, DS1 and DS2, show that onsite debris materials are non-hazardous and no further environmental investigation or action is warranted. The debris sampling regulatory analytical results are summarized and presented in Appendix E, Sampling Analytical Summary Table 6.

APPENDIX A
HRE PERSONNEL CERTIFICATIONS





TEXAS DEPARTMENT OF STATE HEALTH SERVICES

*It is known that***MICHELLE L. PENA***is certified to perform as a***Lead Inspector**

*in the State of Texas and is hereby governed by the rights, privileges and responsibilities
set forth in Texas Occupations Code, Chapter 1935 and Title 25, Texas Administrative Code, Chapter 295
relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.*

Eduardo J. Sanchez, M.D., M.P.H.
Commissioner of Health

License Number: 2350779Issue Date: 10/14/2005Expiration Date: 11/25/2007

Void After Expiration Date

VOID IF ALTERED

Control Number: 3362

NON-TRANSFERABLE

NITON LLC***Certificate of Achievement***

Michelle Pena
Healthy Resources Enterprise, Inc

*has successfully completed the Manufacturer's Training Course
for the NITON Spectrum Analyzer and is now certified
in radiation safety and monitoring, measurement technology,
and machine maintenance of the NITON XRF Spectrum Analyzer.*
(CMAA - The 4000 Awards / CMAA post approval 3-05-106)

A5082459566
Certificate Number
09/15/05 Houston, TX
Date & Site of Course



Michelle J. Gonzalez
Training Coordinator
Michelle J. Gonzalez
Director of Training

APPENDIX B
SITE PHOTOGRAPHS

Former City of Houston Fire Station #11 Property



Photograph 1
Sample Location SB 1
North Section of Property Near Overhead Electrical Transformers

Former City of Houston Fire Station #11 Property



Photograph 2
Sample Location SB 2
West Section of Property Near Fowler Street and Asphalt/Concrete
Driveway

Former City of Houston Fire Station #11 Property



Photograph 3
Sample Location SB 3
West/Northwest Section of Property Near Fowler Street

Photograph 4
West/Southwest/South View of Property Intersection of Washington Avenue and
Fowler Street

Former City of Houston Fire Station #11 Property

Photograph 5

West/Northwest/Southwest View of Property Along Fowler Street

Former City of Houston Fire Station #11 Property

Photograph 6

West/Northwest/Southwest View of Property Along Fowler Street

Former City of Houston Fire Station #11 Property

Photograph 7
North View of Property - Rear

Former City of Houston Fire Station #11 Property

Photograph 8
North/Northeast Section – Upstairs Area

Former City of Houston Fire Station #11 Property

Photograph 9
South/Southwest Section – Upstairs Area

Former City of Houston Fire Station #11 Property

Photograph 10
Northeast Section – Down Stairs Area Garage

Former City of Houston Fire Station #11 Property

Photograph 11
West/Northwest Section – Down Stairs Area Garage

Former City of Houston Fire Station #11 Property

Photograph 12
North/Northwest Section – Down Stairs Area Garage

Former City of Houston Fire Station #11 Property

Photograph 13
South/Southeast Section – Down Stairs Meeting Area

Former City of Houston Fire Station #11 Property

Photograph 14
South/Southeast Section – Down Stairs Meeting Area

Former City of Houston Fire Station #11 Property

Photograph 15
Northeast Section – Down Stairs Kitchen Area

Former City of Houston Fire Station #11 Property

Photograph 16
Light Ballast – Ceiling Down Stairs Meeting Area

Former City of Houston Fire Station #11 Property

Photograph 17
Northwest Section – Roof Area

Former City of Houston Fire Station #11 Property

Photograph 18
Southeast Section – Roof Area

APPENDIX B
SOIL BORING LOGS

APPENDIX C
SOIL, SOIL BORING/GROUNDWATER &
DEBRIS SAMPLE ACCUTEST LABORATORY ANALYTICAL RESULTS

APPENDIX D
EMSL LABORATORY ASBESTOS SAMPLE AND HRE LEAD X-RAY
FLUORESCENCE (XRF) ANALYZER AND EMSL LABORATORY LEAD
SAMPLE ANALYTICAL RESULTS

APPENDIX E
SOIL, SOIL BORING/GROUNDWATER, DEBRIS AND ASBESTOS AND
LEAD SAMPLING ANALYTICAL SUMMARY TABLES
